

# MonniHard D

**Dry Shake Floor Hardener** 

## **Product Description**

MonniHard D is a blend of hydraulic binder, special aggregates and selected additives to provide optimum performance when applied to fresh concrete floors. MonniHard D will provide continuous protection to concrete floors against wear, impact and abrasion. In addition, it provides a high resistance to various industrial flooring against chemicals, oils, greases, detergents and hydraulic fluids found in the aviation industry.

MonniHard D is applied by dry shake method to ensure that top hard wearing surface bonds monolithically to the concrete flooring.

### **Uses**

MonniHard D provides a hard surface to concrete toppings in variety of hard wearing surfaces such as:

- Car parks
- Car washes on new concrete floors in warehouses
- Factories
- Power stations
- Shipyards
- Military establishments
- ► Airport
- Other flooring areas where hard abrasion and impact resistant surfaces is required

## **Advantages**

- Premixed ready to use offering factory controlled quality assurance
- ► Ease of application
- ► High abrasion resistance
- ► High impact resistance
- Non dusting surface
- Non-oxidizing
- Slip-resistant finish can be obtained
- High resistance to petroleum based products
- For internal and external use
- Economic installation

## **Usage Instructions**

Use a placable and finishable non-bleeding concrete mix of required strength design, with a minimum slump of 75 mm and not more than 3% entrained air. The surface is then floated with a wooden or aluminum float. After casting, any bleeding water from the concrete should be removed.

Sprinkle MonniHard D along edges of bags (approx. 100 mm strips) where expansion and contraction joints will be located first. Float into surface using a wooden float.

As soon as the concrete is firm enough to support the weight of the workman, apply the first shake of MonniHard D.

Use up to 2/3 of the total shake mix in the first application. Treat areas adjacent to walls and columns first. Spread the material evenly by sprinkling at right angles in two passes close to the floor level.

Allow applied material to absorb moisture from the concrete surface. Uniform darker color will be apparent.

Using a wooden float, float MonniHard D into the concrete ensuring material becomes an integral part of the surface.

Follow second floating immediately after first floating. Employ the balance of the material, follow promptly with second floating using wood or aluminum float or power float in case of large areas.

A third power floating may follow for added compaction, if required.

Note: If coarse non-slip finish is required, do not proceed with further floating or trowelling operations after second floating but allow the surface to cure.

#### Curing

Curing should be carried out immediately after the final trowelling operation has been completed. It can be done by either covering with wet Hessian cloth and Polythene sheets or by the application of curing compound. Immediately after removing Polythene sheet sweep the floor to remove any dust or loose particles.

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#### Cleaning

Tools and equipment should be cleaned with water immediately after use. Spillages should be absorbed with sand or sawdust and disposed of in accordance with local regulations.

Hardened materials should be removed mechanically.

## **Technical Data**

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Category	Typical Values
Color	Cement grey, red, brown, green, black
Compressive Strength at 7 days at 28 days (ASTM C579)	>40 N/mm <sup>2</sup> >50 N/mm <sup>2</sup>
Flexural Strength at7 days at28 days (ASTM C580)	>7 N/mm² >11 N/mm
Abrasion resistance (ASTM D4060)	742.2 mg
Staining	Resistant to petrol, automotive, lubricating oils, aviation lubricating oils, kerosene, hydraulic brake fluid.

All values are subject to 5-10 % tolerance

## Consumption

Light duty:  $2.5 - 4 \text{ kg / m}^2$ Medium duty:  $5 - 6 \text{ kg / m}^2$ Heavy duty:  $8 - 9 \text{ kg / m}^2$ 

Joints (expansion): 1.5 kg in 8 cm strips

## **Packaging**

MonniHard D is supplied in 25 kg bags

## Shelf Life & Storage

Keep the product in a dry covered place into original well closed packaging. Shelf life is 6 months from date of production if stored properly.

## **Health & Safety**

During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary.

In case of contact with skin, rinse with water and again, wash thoroughly with soap and water. In case

of contact with eyes, rinse with plenty of water and seek medical advice accordingly.

If ingested, obtain medical attention immediately. Do not induce vomiting.

# Legal disclaimer

Monneli endeavors to ensure that any advice, recommendations, information it may give, is accurate and correct. It cannot accept any liability either directly or indirectly arising from the use of its products, because it has no direct or continuous control over where or how its products are applied, whether or not in accordance with any advice, specification, recommendation or information given by us. Monneli has the right to change any of the specifications mentioned in the Technical data sheets upon its discretion without prior notification. Hard copies of TDSs are printed once or twice a year, while our technical data sheets are continuously being updated as per R&D improvements and new 3rd party testing; kindly refer to our website for the latest updated TDSs.

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